

The HILL AND DALE News



No 113

April 1980

THE EDISON-BELL COMMERCIAL PHONOGRAPH

This is the only successful machine yet devised for commercial use.

It is driven by Electric Motor or by Clockwork as may be desired. Where electricity is obtainable it is preferable to use the motor, which for all mechanical purposes is the most regular motive power, besides being absolutely silent.

Ordinary phonograph cylinders are used, but as the lines of engraving are made much finer than in the ordinary phonographs, the records hold double the quantity of dictated matter than can be put upon any other cylinder.

Over 1000 words can be put upon one of these cylinders, and each cylinder can be used over and over again fifty times, thus the total capacity of each cylinder is over 50,000 words.

The cylinder costs ninepence and the phonograph, which we claim to be the finest and best finished instrument made, is reduced to £15. We shall be glad to give all further necessary particulars.



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81, CITY ROAD, LONDON. E.C.

EDITORIAL

This issue starts a new volume of 'Hillandale', although I suspect that many of you were not aware that the magazine is divided into volumes; individual issues are numbered continuously, and the volumes in the past have consisted of ten issues each, which seemed to me slightly anomalous for a magazine which was issued every other month to readers subscribing by the year. I have therefore changed this, and volumes will in future comprise twelve issues, and will correspond to the subscription year. That is why the new volume starts with the April issue, not the February one as might have been expected.

Members of long standing may remember that some six years ago there was some discussion in these pages on the Duo-Trac, an advanced optical tape-player which made a brief appearance on the market in the late 1930's. By one of those strange coincidences with which life is peppered, there appeared in a London auction not long after an example of the Duo-Trac, and a particularly interesting example in that it came from the estate of the late C. O. Hamer, who had been instrumental in the design of the machine. Recently this same machine came up for sale again, untouched since the 1974 auction, and was bought by a Society member who, within a few days, had it working. I was privileged to be given an early audition, and although it was not working at full efficiency, its performance led support to the suggestion that was made in one of the earlier articles, that the Duo-Trac was bought out by prominent firms in the record industry, fearing that it might affect their sales. Certainly, the quality of reproduction, the absence of surface noise and the 90-minute playing time would have posed a very serious threat to the 78 market of the time.

It would be interesting to hear from any other member who has come across one of these machines; it appears that it was marketed, or at least was intended to be, in America as the R. C. A. Photophone, and I wonder if any of our members on that side of the ditch can add any information on the subject?

COVER ILLUSTRATIONS

To accompany the second part of Frank Andrews' article on the first wax cylinder recital in this country, we show on the front cover a 1903 Edison Bell advertisement. This is one of a series of photostats kindly supplied by Steve Jellyman, and is interesting in that it illustrates an 1888 Perfected Phonograph, and is virtually the same engraving as appears in the 1888 'Phonograph and Phonograph-Graphophone' booklet reproduced by the Society. The difference is that the battery box is omitted, along with the connecting wires, although the presence of the terminals presumably indicates that this is not a spring-driven version! From the accompanying blurb, it was apparently the Edison Bell machine (as used in the original 'His Master's Voice' picture) that was being referred to, not the Perfected Edison machine or Class S or M.

Opposite, as the frontispiece, is a Zonophone advertisement of early 1904; although Zonophone was by then a G. + T. subsidiary, there is little evidence in the machine itself of the new ownership.

It is sometimes difficult for members, especially those living overseas or otherwise not in touch with the Society's administration, to know who does what. As a consequence, they do not always know to whom they should write on this or that subject, and so I thought it might be helpful to explain the Officers' various 'offices'.

First of all, please remember that, if you are writing from within the British Isles and require an answer, you should enclose a stamped addressed envelope. Remember also that all payments, whether for subscriptions, publications or parts, should be sent to the Treasurer, Barry Williamson, and that they should be in Sterling, payable to the City of London Phonograph and Gramophone Society for subscriptions and publications, but to Phonoparts for spares.

Barry deals with the Phonoparts orders in Liverpool, but sends orders for publications to Dave Roberts, who holds all the stocks of these and copes with the daunting task of packing and posting them. When subscription payments are received, Barry sends receipts, in the form of membership cards, to the Secretary, John Mckeown, who sends them out with the next mailing of the magazine. John keeps the membership files, and sends out the magazines every other month, and enquiries about membership, changes of address or requests for replacement magazines should you be so unfortunate as to have one with a blank page, for example, should be addressed to him.

I edit the magazine, and any material for publication should be sent to me: I do not have much time left for replying individually, but will try to do so where necessary. I will assume, unless you indicate otherwise, that if you write to me as Editor, your letter is for publication in the magazine if I think it would interest readers - I am thinking particularly of requests for information, which make interesting reading whether I can answer them or merely have to ask readers to provide an answer. Black and white photographs are useful, indeed often essential in identification queries, but colour transparencies are not suitable, and colour prints do not reproduce well. For advice on problems in restoring or repairing machines, there is the 'Technical Forum', in which series Mike Field's first article appears in this issue; letters should be addressed directly to him, at [REDACTED]

If you wish to advertise in the loose pages accompanying each magazine, you should send your copy to John Mckeown, likewise reports of Regional Meetings (Please try to keep them brief). In this context I would remind members that John took on this particular job as a 'stand-in', and would very much like someone else to take it over permanently. If you think you might be able to help, do not hesitate to get in touch with John. The Almanac is prepared by Dave Roberts, and he is always keen to hear of any forthcoming events which might interest members.

Finally, do not forget that new members are always welcome, and if you meet a collector who is not already in the Society, there is no harm in encouraging him or her to join; preliminary enquiries about the Society can be addressed to the Secretary, or application can be made direct to the Treasurer, accompanied by the current annual subscription. As most members are probably aware, the subscription runs from March 1st., and members joining later in the year receive all six magazines for that year.

PART TWO

As we know from Gouraud's letter announcing the arrival of the Perfected Phonograph, it was accompanied by a number of pre-recorded cylinders, with the indication that Edison would be sending more to England with every mail out of Orange, New Jersey. Thus, by the time Gouraud was ready to demonstrate the new type of phonograph to a gathering of people, he should have amassed a considerable number of pre-recorded phonograms, since by the time of the recital on August 14th 1888, forty-eight days had elapsed since the phonograph's arrival on June 26th.

The 'At Home' gathering at Little Menlo was reported widely in the national press and although accounts varied as to detail, in essentials one could learn as much from one report as from another. The Morning Advertiser's reporter wrote as follows:

"Col. Gouraud, Mr. Edison's representative in London yesterday gave an 'at home' at his residence, Little Menlo, Beulah Hill, Upper Norwood, with the intention of affording his visitors a demonstration of the powers of the second or 'loud-speaking' phonograph, invented and perfected by the great American electrician. His inventions were readily responded to by a large number of ladies and gentlemen who began to assemble at two o'clock in the afternoon, and were succeeded by others, who continued to arrive during some hours."

'Society's' reporter said he had just seen the eighth wonder of the world: "It is a wax cone." The audience, according to him, were scientific men and representatives of the press, a view echoed by the 'Evening News' reporter. The man from the 'Pall Mall Gazette' said he was under the impression that he was to meet Edison, which was how Gouraud worded the invitation, but he had failed to notice 'Eloquentem sed non Praesentem' printed in small type ('Speaking but not present'). It is this reporter's account of the afternoon's proceedings which I am using.

"The occasion of this visit to Little Menlo was the arrival of a loud-voiced phonograph who proved a most attractive and versatile person. He sang, he played, he laughed, he whistled, he told funny stories, he hammered, he barked, he cried, he made speeches and proved himself a person of quite superior attainments. And the voice was the voice of Edison, loud as the deep baying of a chained watch dog, resonant, with a pronounced Yankee accent, a voice with a great sense of humour in it, the voice of a rough and ready man and the voice of a deaf man, who wished to rub-a-dub on your ear-drums. I can assure you that six inches of Edison's jokes and laughs on the cylinder, properly conducted to your ear-drums by the little glass drops, are no joke, sounding something like a thunderstorm among the mountains. You should hear him tell the story of the American who went up to the gates of Heaven and asked to see Peter on particular business. 'Well, my man, name and late residence', said Peter, with a strong Yankee twang. 'A noospaper man, an editor from the City of Noo York', replied the visitor. 'This way to the elev-

ator', said Peter, and the 'noospaper man' was shown into another room to wait his turn. He waited for half an hour, and being in 'an almighty hurry' asked the man in charge how long he had to wait to go up. 'Who air you?' asked the man. 'A noospaper man from the City of New York'. 'Ho', said the man, with a low laugh, 'Your elevator goes down!'

"I am not so sure about the end of Mr. Edison's story, as it was little indistinct after the departure of Peter, but if he will send me the correct version I shall be obliged.

"As this was the first appearance of the phonograph in public, I give the programme as a memento of the occasion.

- 1) The phonograph greeting the London press (previously recorded on a blank by Col. Gouraud - F.A.)
- 2) The Phonograph's Salutation - a poem by the Rev. Horatio Nelson Powers.
- 3) Mr. Edison's first phonogram to Col. Gouraud.
- 4) Mr. Edison's second phonogram to Col. Gouraud.
- 5) Recitation by Mr. Edison - 'Fair Bingen on the Rhine'.
- 6) Whistling by Mr. Edison.
- 7) Song by Mr. Edison.
- 8) Soliloquy by Mr. Edison.
- 9) Various familiar sounds with an introduction by Mr. Edison.
- 10) Whistling Solo by 'La Belle Siffleuse' (Mrs. Shaw, U.S.A.).
- 11) Observations by Mr. Edison on his first visit to England (in the flesh)
- 12) Observations on travelling, by Mr. Edison.
- 13) Observations on the English Climate by Mr. Edison.
- 14) Suggestions to Mr. Gladstone on tree-felling, by Mr. Edison.
- 15) Recitation from Shakespeare after the late John McCulloch.
- 16) Song with pianoforte accompaniment.
- 17) Pianoforte soli: Waltz by Strauss; The Blue Danube Waltz; two polkas by Strauss; Funeral March, Chopin; Waltz, Strauss; song from 'Faust'; Mazurka by Strauss; The Friar; Soldiers' March, 'Faust'; Drinking Song; Seventh Regiment March; Cornet solo; a piece from Mozart; Cornet and piano duet. (it appears that the reporter forgot his 'pianoforte' heading! - F.A.)
- 18) Mary had a little Lamb (Edison? - F.A.)
- 19) Banjo with song.
- 20) Presentation of guests to Mr. Edison through the phonograph.
- 21) Phonogram from Col. Gouraud's guests to Mr. Edison, to be forwarded to America.
- 22) Finale: God Save the Queen, The Star-Spangled Banner, with variations.

"Unfortunately, the new instrument broke down during the early part of the afternoon owing to hard knocks it had received on the voyage, but a portion of the programme was given with great success.

"A bell-shaped trumpet was fixed into the machine and the company was entertained by the deep tones of a mellow voice trolling out a famous song of Mr. Santley's, 'The Friar'; this was followed by a drinking song which was also admirably rendered.

"The piano and cornet duet I listened to through the tubes and eardrops, and glad enough I was to pass them on, for the piano was a wheezy and cracked tin-kettle and the cornet sounded like a mixture of an indifferent hurdy-gurdy and a tin-whistle. I made the comparison to Mr. Hamilton, who resented it with some acrimony.

"Do you know a cornet", he asked, "when you hear it?"

"I believe so", I replied.

"And do you mean to tell me that you could not single out the cornet from the piano?"

"I will take a solemn oath that I cannot".

Then he discovered that a wire had gone wrong. The machine was put under repair and in an hour Mr. Edison's representative had put it right and Mr. and Mrs. Harris put it to the test when I took the tube from the Director-General of Italian Opera in England I knew why he bobbed his head so smilingly. The music, if not exactly that of the spheres, was very pleasant.

.....As Mr. Hamilton, most patient and untiring of experiment-
alists, explained, the phonograms were only selected 'just anyhow.'

"The second phonograph was in splendid form, and gave admirable results. One of the most amusing and amazing was the repetition of familiar sounds, such as the striking of a hammer on an anvil, the rasping of a file, or a bit of sandpaper, the sound of a station bell, the cry of a railway porter. Mr. Edison was 'eloquentem' if not 'praesentem' and addressed a few remarks to the audience, which were as follows: (in fact, the words which follow had been spoken into the phonograph by Col. Gouraud, as other reports of the afternoon make clear - F.A.)

THE PHONOGRAPH'S GREETING TO THE LONDON PRESS

"Gentlemen: in the name of Edison, to whose rare genius, incomparable patience and indefatigable industry I owe my being, I greet you. I thank you for the honour you do me by your presence here today. My only regret is that my great master is not here to meet you in the flesh as he is in the voice. But in his absence I should be failing in my duty, as well as in my pleasure, did I not take this, my first opportunity, to thank you and all the press of the great city of London, both present and absent, for the generous and flattering reception with which my coming to the mother country has been heralded by you to the world'.

"Mrs. Shaw, the whistling lady, whistled some phonograms for Mr. Edison's edification, and a tune for ours. Colonel Gouraud sang 'John Brown's Body' for him, indited a letter to him; Mr. Harris expressed his intention of running no more Italian operas, which he foresaw were doomed, but of purchasing a large quantity of phonographs and giving phonograph operas, with phonograph prima donnas to interpret them.

"And so ended a most agreeable afternoon."

For the record, other details were given by other reporters. 'A Swinging Song' was sung by Mr. Busher. A cornet solo was performed by Professor Hoch, and the cornet and piano duet was a piece by Bach. A pianoforte solo was said to have been obtained by placing a large receiver over the strings of the piano. Edison performed on twenty-five different cylinders. 'Society' wrote:

"As a medium of teaching languages Colonel Gouraud has already put the phonograph to the test and he has in his schoolroom phonographs that are teaching his children French pronunciation and conjugation. In answer to questions as to the discovery, the reply was 'An accident'". - 18.8.1888.

The 'Evening News' spoke of Mrs. Shaw as whistling Ardit's 'Leggero Invisible' and of Colonel Gouraud giving an impression of a 'swell' by substituting w's for r's and of a cockney character by dropping the aspirates. The 'Advertiser' mentioned a recording of 'A most amusing piece of spirited declamation by an excited Frenchman, delivered in the purest French, and interspersed with many excerpts from the vocabulary of Gallic rage, and then went on to describe, in broken English, the renunciation of the ways of la patrie in favour of those of perfidie Albion.'

In the 'Anglo-American Times', three days after the at home at Little Menlo, a report included the text of the Rev. Powers' poem, first mentioned by Gouraud in his letter to the press written on June 26th 1888. This poem, recited by its author, was prefaced with 'The contemplation of its wonderful character and performance is overwhelming and my feelings naturally seek vent in verse. But the phonograph will speak for itself. Now listen to its voice:

THE PHONOGRAPH'S SALUTATION

I seize the palpitating air, I hoard
Music and speech. All lips that breathe are mine.
I speak, and the inviolable word
Authenticates its origin and sign.

I am a tomb, a Paradise, a throne;
An angel, prophet, slave, immortal friend;
My living records, in their native tone,
Convict the knave, and disputation end.

In me are souls embalmed, I am an ear
Flawless as truth, and truth's own tongue am I.
I am a resurrection; men may hear
The quick and dead converse, as I reply.

Hail English shores, and homes, and marts of peace!
New trophies, Gouraud, yet are to be won.
May sweetness, light and brotherhood increase!
I am the latest-born of Edison. '

EXPLOITATION OF THE PHONOGRAPH

In America, in order to place the new Edison machines and to take care of their manufacture, a new company had been established called the Edison Phonograph Company, despite the fact that the old Edison Speaking Phonograph Company was still in existence. The latter company held that it had the rights to any improvements that Edison might make to his phonographs.

In the same issue of the 'Anglo-American Times' of August 17th, another article stated: " The Edison Phonograph Company, which owns all of Mr. Edison's patents for recording, perpetuating and reproducing articulate speech in the United States and Canada, has been sold to Jesse H. Lippincott, of New York and Pittsburgh, for something over one million dollars. All improvements made by Mr. Edison during the next fifteen years are to come to Mr. Lippincott. By a contract made in March last with the American Graphophone Company of Washington, Mr. Lippincott became sole licensee of that company for the next fifteen years. The Graphophone is the rival of the Phonograph. "

Once again Edison had given up his rights in his talking machine invention, as the Bells and Tainter had surrendered their rights in theirs. Both machines, and the patents which covered them, had been transformed into commodities which, in America, were for the time being under the monopolistic control of Jesse H. Lippincott and the North American Phonograph Company which he had founded.

New British patents were to be taken out in the next two years, mainly through Gouraud, on various inventions claimed by Edison, two of the most important being the solid wax cylinder with taper bore, and the tapered metal cylinder on the phonograph itself. Whether Gouraud established the enterprise which he called The Edison Phonograph Company at the time of the 'at home,' or before or after it, I do not know; the company's offices were at Northumberland House in Northumberland Avenue. It was not concerned with selling Edison phonographs (which were not sold legitimately in Britain until October 1896, although many machines were sold in this country in infringement of Edison and Bell-Tainter patents.)

The income of Gouraud's Edison Phonograph Company, which operated with a few machines and a small team of skilled demonstrators, came from staging events similar to the 'at home' of June 26th 1888, except that the public had to pay entrance fees. This was the sad position of the Edison phonograph in Britain for the next four-and-a-half years, the machine's potential demoted to that of a 'circus,' as one of Gouraud's critics remarked.

On June 22nd it was reported that Edison, standing outside his laboratory, had

said, "I want to have 25,000 men working in factories on my inventions right here." (The Edison Phonograph Works had yet to be organised). Only with the arrival of extra machines from the Edison laboratories could Gouraud stage his first public demonstration. According to an article published three days before the event, in the 'Mechanical World,' Edison had cabled Gouraud that he had, "in deference to numerous requests," dispatched several phonographs to be placed at the disposal of the scientific and learned societies of Great Britain in such a manner as Gouraud might determine and, as far as possible, in order of priority according to date of application. These instruments were to contain new devices for rendering audible to audiences the sounds emitted.

The same paper also revealed that the Colonel had been invited to read a paper on the Edison phonograph at the forthcoming meeting of the British Association. On this occasion, the phonograph "would probably make its first public appearance in England".

THE PHONOGRAPH AT BATH

At least two instruments had been on display at Little Menlo, with that used to teach French to the Colonel's children as a possible third. When Gouraud displayed one of these phonographs at the Mechanical Science section of the British Association meeting at Bath, he was able to announce that five more phonographs, better than the one he was displaying, were already on their way to him. This was in the first week of September, 1888. The President of the Section was W.H. Preece, who delivered a lecture on modern developments in electricity before Gouraud was called upon.

The tinfoil phonograph was then put on display and the Colonel is reported to have said, "While it proved that sounds could be recorded and reproduced, it possessed the great defect that when once the recording was removed it could not be placed so as to be repeated. It was only operated with great difficulty and by experts, most persons, as a rule, failing to get good repetitions." He then made a statement which, to my knowledge, has never been substantiated - indeed, what evidence there is seems to imply the opposite: "During the next ten years Edison was busily working in the direction of perfecting the instrument, although for the most part engaged with his work on electric light." He also said that he had lately received a telegram from Edison claiming to have discovered a better material for the phonograms than the wax he had been using. A cornet solo of 'The Last Rose of Summer' was rendered for the British Association audience.

Colonel Gouraud was followed by Henry Edmunds (of W.T. Glover and Co.), the representative of the Graphophone in Britain. Edmunds had been the first to describe the tinfoil phonograph in the 'Times' on February 17th 1878, and it had been under his instruction that Preece had built the first tinfoil machine in Great Britain.

Edmunds gave credit to Cros for being the first to suggest the mechanical recording and reproduction of sound, remarked on the difficulties of the tinfoil machine, and stated that Edison gave it up, the patents being allowed to lapse in Britain. He then

spoke of the Bells' and Tainter's experiments and their method of cutting into wax. This they began in 1881, at which time they were operating as the Volta Laboratory Association. The latter was dissolved in 1885, the year in which they applied for their Letters Patent. He ended by saying, "All these applications are now in active operation in America, where the Graphophone is a great success."

In reply to previous speakers, Gouraud said that the price of the Edison phonograph had not yet been fixed, but on Monday of that very week, Mr. Edison had started a factory for the manufacture of the instruments, with an estimated total annual output of 18,000 machines. It was expected that the first of these would be placed on the market at from about £20 to £25 each. (They never were - F.A.)

A controversy then arose over the wax cutting technique. Gouraud claimed that there was not one feature of the Graphophone that Edison had not used during the previous ten years, and Mr. Gilliland held that Edison had invented, published and patented all the essential principles embraced in the present Perfected Phonograph. Mr. Edmunds considered it a remarkable circumstance that Edison should have neglected such a promising child of his in 1879, and turned his attention to the broad and lucrative field of electric lighting. If Edison had been working at the phonograph for all those years, how was that he allowed his English Patents to lapse?

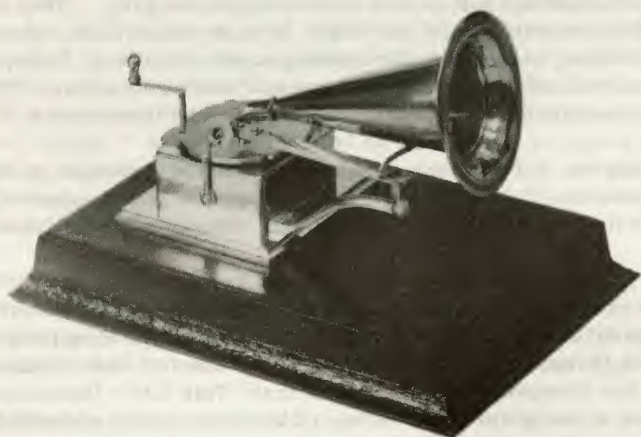
The President of the meeting, W.H. Preece, here intervened, suggesting that it was undesirable to introduce controversial matters, and the subject was abandoned. He later mentioned that he had been at Gouraud's house the night before and had heard recordings of a Beethoven sonata recorded in New York the previous May.

A SAD ENDING

Thus was the Edison Perfected Phonograph presented to the British public. Control of its destiny passed from Gouraud in 1890 to a new American company. This concern acquired the new British Edison patents and the older British Bell-Tainter patents. Gouraud became one of the controlling committee for phonographic affairs in Europe. As late as February 1891 he was still arranging exhibitions and demonstrations. For one at the Royal Aquarium, Westminster, the admission fee was only threepence.

What happened to the Graphophone? In America, when the Edison phonograph had passed under the control of Lippincott, it had been stipulated that the Graphophone (of which he already controlled sales) should be advertised as the 'Phonograph-Graphophone.'

On October 26th 1888 Gouraud received cutting from the 'Electrical Review' of that day, which stated "A company called 'The Metropolitan Phonograph Company' is booming an instrument called the 'graphophone-phonograph.' Below is a description of the instrument, published by the company, which claims that 'This little instrument will create a big sensation, if not a complete revolution, in business and social circles.' The company rely greatly upon the name of Bell to boom this as one Chichester A. Bell, a brother of Bell of telephone notoriety, is one of the inventors of this wonderful



instrument. I am inclined to think that this invention has been borrowed from that beautiful invention of Mr. Emile Berliner, an account of which your excellent REVIEW has presented to its numerous readers." Describing the Graphophone, the article stated "every sound, no matter how insignificant, is clearly and faithfully repeated in a perfectly distinct tone, having all the qualities and inflections of the sounds originally thrown into the mouthpiece."

Little else is known about the fortunes of the Graphophone in Britain during the next few years, but in America, in spite of Henry Edmund's claim of its great success, it did not prosper. It was alleged by many that the wax-coated cardboard cylinders were unstable and a permanent record could not be guaranteed. There was also opposition from 'stenographers' (shorthand-writers) who were not only required to acquire a new skill to carry out their work where these machines had been installed, but also foresaw that their livelihoods could be in danger if the dictating machines were accepted on a large scale. The Edison phonograph suffered a setback in this respect also, but it was the Graphophone which was eventually taken out of production.

At the latter end of 1892, the Edison Bell Phonograph Corporation Ltd. was formed and its most valuable assets were the new British Edison patents and the all-important Bell-Tainter patent for cutting sounds into wax-like substances. Even so, this company was not prepared to let the public buy any phonographs until external pressures finally impelled them to allow James E. Hough and his London Phonograph Company to sell outright the smaller models then available, and that was not until October 1896.

Incidentally, the 'Electrical Review' referred to Berliner's creation in ignorance of the fact that the Bells and Tainter had been experimenting since the early 1880's. This was understandable, for the results of their work had not been published, and indeed were not until the 1930's, apart from the specifications and claims in the Letters Patent which were gathering dust in the British Patent Office until Edmunds demonstrated the Graphophone in Bath in 1888. Berliner had begun his experiments in 1887; one of his experimental machines, which had been described in the 'Review', had been of the cylinder type. Hence the mistaken idea that the Graphophone had been 'cribbed' from Berliner.

A facsimile reproduction of a catalogue of Lippincott's company, featuring the PHONOGRAPH and PHONOGRAPH-GRAPHOPHONE is available through the Society for £1 post free (No. B 108). Dated 1888, this is considered the first phonograph catalogue. — Ed.



Latest Improvement in Phonographs.

HAVE YOU SEEN THE RAWLINSON JOINT? If not send a Machine along and have one fitted. It will interest you. The difficulties of Leaky Joints completely solved. Some of its advantages. No Cross Pins. No Rattle. Perfectly "Sound Tight." Gives 30 per cent more tone. Automatically Self Centring.

Prices and Particulars on Application to

J. J. STOCKALL & SONS, LTD.,
6, 8, 10, CLERKENWELL ROAD. E.C.

THE BODY AND SOUL OF THE GRAMOPHONE

PART 12: Conclusion.

by Jim Goodall

PRESERVATION AND PROGRESS

With ever faster advances in scientific research and discovery, and the immense improvements obtained by electrical means in sound recording and reproduction, the case against retaining the gramophone as we knew it is now so obviously overwhelming that it seems only realistic to regard it as an interesting but obsolete antique, a historical link in the development of sound reproduction. The sound emerging from stereophonic and quadraphonic systems I have heard is superbly beautiful and realistic. Cassette instruments not much bigger than pocket cameras are now capable both of recording and reproducing with an unbelievable quality.

What more can one want, and what chance has the gramophone against such competition? The nature of electricity is such that there is no limit to what can be done with it, while acoustic methods are severely limited by their dependence on mechanical considerations. However, like other sciences, acoustics can never be completely exhausted. It is just that we had failed to find satisfactory means of producing stereophonic sound acoustically before electronics arrived. (Acoustic gramophones were obsolescent long before stereophonic sound appeared on the market - Ed.)

Readers of my articles may gain the impression that I am trying to put the clock back, but I am all for advance and am intrigued by it. The whole object of living is to improve on products and living standards that have gone before, and always endeavour to do it in POSITIVE directions. Without this objective, there would be little to interest one, no excitement, no new ground to break, nothing to discover and, in fact, no point in living at all.

All creations, skills and sciences have both positive and negative aspects and applications, some being more positive or negative than others. To advance in the best possible way, therefore, we should try to preserve the positive aspects of the past and use them alongside our present-day creations and so enhance our way of life. Every artefact, be it artistic or functional, has a certain personal character which can never be found in subsequent creations performing the same function. In the course of our progress, we tend to discard not only what is negative, or of no consequence, but also things with individual qualities which still retain useful potential. Many things have timeless qualities which can be artistic, functional or mechanical, but when we replace them, we discard the skills that created them. We discard timeless qualities at our peril, for, along with our progress towards ever greater efficiency, comes the danger of being trapped in a featureless environment of uniformity.

THE CLOCKWORK-ACOUSTIC

There are some questions and comparisons one can make on the standing of the acoustic gramophone:

- 1/ On the basis that acoustic science can never fully be exhausted, and therefore assuming that a gramophone could be produced capable of playing both 78 and l.p. records as well as a good electric record-player, would people be sufficiently interested to warrant the production of such machines, especially if they were light and portable?
- 2/ The fact that societies such as the C. L. P. G. S. are still going strong must indicate an appreciable minority with some sort of affinity for the clockwork-acoustic, which continues to obtain pleasure from playing these machines. Does it not seem somewhat unfair that because most of us have turned electric, the production of 'wind-up' gramophones together with spares should have been entirely discontinued?
- 3/ Because of their character, steam trains have been saved from extinction and dedicated societies have not only preserved them, but have re-commissioned some to useful service.

Does this not provide a case for resuming on a limited scale the production of some high class acoustic equipment to cater for the minority of acoustic and 78 enthusiasts? We preserve acoustic machines and keep them in working order, but we are not producing any more, with the result that, because of their increasing rarity, they will become too expensive for the average enthusiast to acquire.

THE DISCS

By comparison with l. p. s, 78 records are heavy and space-consuming. An average 12-inch 78 weighs 10oz., so that 3,584 of them will weigh a ton! They are very brittle, whereas l. p. s are thin, light and flexible. The 78 is more subject to wear, on account of the greater modulations and the weight of the soundbox, than the l. p., which plays with 100% efficiency with only a fraction of a gram bearing on the stylus. In their favour, 78s are less prone to damage by dust and scratching, being of harder material with larger grooves. Because of electro-static tendencies, dust causes loud crackling sounds on l. p. s, although surface noise is almost entirely absent provided they are kept clean.

L. p. s have the obvious advantage that one side will run for nearly half an hour, and a complete symphony is thus cheaper to buy than the same work on 78s. However, when it comes to short items such as overtures, dances etc., the 78s had the advantage. Now that 78s and most 45r.p.m. extended play records are off the market, one can only get a specific short piece by paying the full price for a 12-inch l. p. bearing six or more other items on each side, many of them very likely unwanted. To add to the difficulties, very few modern record players are equipped to play 78s, so that one has to have an old machine to play 78s at all. I feel these last considerations make a strong case for the restoration of 78s and 'winders'.

THE MACHINES

The greatest disadvantage of the clockwork acoustic is that it is not possible conveniently to fit it with an exponential horn large enough to reproduce bass frequencies properly. Even some of the top notes are either distorted or unclear. This failure can be mitigated up to a point by using a well-adjusted soundbox of good design (as discussed in my previous articles). Given enough room, it is possible to obtain results as good as or even better than those from any electrical record player.

With modern equipment, you do not have to wind up and change the record every four minutes. This failing was only partly mitigated by the fitting of up to four springs in motors; then it would play at least four sides with one winding, but it made the motor very heavy. It might be possible to get round this problem by making the soundbox of very light material, with a lightweight motor geared to play l. p. s at 33 $\frac{1}{3}$ r.p.m. More on this later.

Where the gramophone does score is that it is so much more robust and less expensive to produce. Repairs are easy to effect, while a sophisticated stereo system can only be repaired by highly qualified technical experts at a ruinously high price. The more elaborate the equipment, the more there is to go wrong with it.

Last, but not least, there is one thing that even the most highly developed equipment cannot take away from the clockwork-acoustic, and that is its personal character compared with an electrically-driven reproducer. However, if the gramophone is not to become extinct in use, some way will have to be found to render it at least competitive with what we have today. Because, as in other sciences, there must be plenty left to discover in acoustics, I feel that the gramophone lends itself to many interesting experiments which are impossible with modern equipment which is far too expensive and complex for most of us to handle experimentally. On this score alone, the gramophone has an advantage over electronic systems.

A LONG-PLAYING CLOCKWORK-ACOUSTIC?

As there is unlimited scope for advance in the electrical field can this not apply also to acoustics? In my mind, I have a picture of a clockwork-acoustic gramophone capable of playing l.p.s, not perhaps with the volume obtainable electrically, but with comparable quality. As I have previously indicated, I am not able to work these things out mathematically, but the mental picture is sufficiently clear to enable me to construct such a machine provided the necessary materials and tools were available. Being of an experimental nature, I am confident the machine would work by the time I had finished with it! By observing the results of one experiment, one is guided to the next step. Briefly, the soundbox of this machine would have a very light aluminium diaphragm $1\frac{1}{2}$ to $1\frac{3}{4}$ inches in diameter, with a similarly light aluminium stylus bar mounted in miniature ball-races. The shell of the soundbox would be of normal weight (4 - 5 ounces) so that its inertia would resist the bass modulations of the groove.

Fixed to a swivel joint on the end of the tone arm would be an adjustable counterpoise, so that the diamond-tipped stylus would exert only featherweight pressure on the record. Whether or not the material of existing l.p.s would be too soft remains to be seen, but a slightly harder material would solve the problem. In any case, the smaller the diaphragm, the less strain there would be on the record grooves. To compensate for the very small diaphragm, a correspondingly narrow tone arm might provide the requisite volume and tonal balance: while listening to the radio during a flight home from New York last summer, I was amazed at the clarity with which orchestral sounds were transmitted through the narrow listening tubes. They were no thicker than cycle valve tubing. This gave the idea that a small light diaphragm working into a narrow tone tube would permit a much greater length of tube and exponential horn to be packed into a cabinet or portable gramophone.

Because of the very light needle pressure on the record, it would need comparatively little force to drive the turntable. Consequently, we could afford to use a smaller lighter single-spring motor with an extra gear to do the job and run for up to 45 minutes at one winding. To enable this new-fangled gramophone to play 78s, an adaptor could be provided for it to take a conventional soundbox. No doubt, if a plan of the motor and its gears were drawn, a computer could work out what size of spring would be required to drive it.

I imagine that if a prototype of an l.p. clockwork-acoustic were produced, large numbers of cheap and efficient machines could be built which would require no maintenance beyond occasional oiling. They would give a great deal of pleasure independent of an electricity supply, and also open new ground for very interesting experiments. In particular, such machines would retain their identity as gramophones in their own right without in any way depreciating the historical value of past generations of clockwork-acoustic gramophones. Now, it is over to 'You, the Jury'.

FINIS

Editor's Comment (as a member of the jury): I suggest that to produce an acoustic spring-driven gramophone from scratch would not be any cheaper than an electric machine; I cannot see the motor alone costing less than £100. Nor do I think there would be a market for such a machine: the C. L. P. G. S. has under 1,000 members, many of whom are interested in records and prefer to play them electrically, while most of the others probably like acoustic gramophones precisely because they are old, and would not be interested in a new one costing more than the real thing. Gramophones are not getting any rarer, and many are still available at a fraction of their original price, if you allow for inflation. Various commendable people are making spare parts, and they do it as a labour of love, not as a commercial proposition. All the same, I should like to see the Goodall l.p. acoustic machine if ever it appears in prototype form.



CORRESPONDENCE

Dear Sir,

I have read with interest Mr. W. Hecht's letter in the December 1979 issue of our magazine, anent the mass production of records and the Edison British Patent No. 1644 of 1878. It troubles me that Edisonites continue to deny the narrow scope of the Edison specification, which failed to claim any recording method proficient enough for commercial use, whether as a medium for business dictation or anything else.

The indenting technique, no matter to what material it was applied, proved to be unsuitable, whatever else Edison had proved by his phonographic invention. Edison's British patent does not claim any other recording method.

Mr. Hecht's first quotation (which is from Edison's Provisional Specification) makes no mention of recording on a waxen surface, unless one misinterprets "Sometimes a thin sheet or leaf of metal is placed upon a sheet of paper having a surface of paraffin or similar material" to mean that it is the metal sheet or leaf which has the paraffin surface. In the context of the complete specification, such an interpretation is nonsensical.

It is true that Mr. Hecht's second quotation (from the full specification) states, "Paper or other materials may be used, the same being coated with paraffin or other hydrocarbons, gums or lacs"; the passage continues "and the sheet, so prepared, may itself be indented," and goes on to suggest a refinement of this, by covering the paper with tin foil. Left like that, Edison did claim recording on wax-like substances, but, in the next but one sentence, he reveals what a poor method this was by saying that when the refined method of smoothing the wax and covering with tin foil was used, "The indentation can now be made in the foil and the paraffin, or similar material, and the indenting point does not become clogged with the paraffin, in consequence of the intervening foil."

Within four years of producing his indenting tin foil phonograph and the granting of his British patents, Edison had abandoned both and, had his claims encompassed the recording technique that the whole industry was to employ from the early 1900's onwards, the delay in using wax cutting by the Gramophone Company in England would not have been necessary: the method would have been 'public domain' as soon as Edison abandoned his phonograph and its covering patents.

It was not the recording on to wax which was 'purloined' by Edison from the Bells and Tainter, but the incising into wax. Edison's patent was abandoned and forgotten in Britain; so much so that when the Bells and Tainter put forward their Graphophone claims, they covered all the ground that Edison had claimed in 1878, with the substitution of 'cutting' for 'indentation'. The Bell-Tainter application for a patent was granted in full, there being no patent examiners at the British Patent Office at that

time. It was only later, when it was discovered that Edison's patent had claimed most of what the Bells and Tainter were granted, that the Bell-Tainter patent was disclaimed on all those points which were in fact already 'public domain.' Significantly, the patent fundamental to the progress of the industry, that of cutting into wax, remained intact, and it was successfully invoked against all who attempted to enter the sound recording arena until it expired in May 1900.

All books and articles I have read on this subject (and these have been quite a few during eleven years of constant research) have always intimated that the Edison Works was about to be served with a summons for infringement of the American Bell and Tainter patents when Edison began producing his incised wax cylinders. It was only through his disposal of his American patents and the granting of the sole sales rights to Jesse H. Lippincott (who had already acquired the sales rights to the Graphophones) that the litigation was abandoned. Following Lippincott's failure, the Edison Works had to acquire a licence from the American Graphophone Company to make and sell incised wax records. These are the facts, as far as I am aware, and I wonder when the Edisonites are going to give up flogging a dead horse? Edison invented a recording method which only he used and which he abandoned. He then proceeded to use the Bell-Tainter method, although it was already protected by Letters Patent.


Emil Berliner knew the position and the acid etching method of recording was his alternative solution, although, initially, he was concerned about a possible infringement of Cros' patent.

As to the mass production of cylinder records, J. L. Young, of London, the former General Manager of the Edison United Phonograph Company, was always claiming to have been the first to patent the invention of moulding cylinders, and his patent of 1894 is reported (in the Wireless Trader) as having been quoted many times in the cases of litigation which arose in the United States. Like Edison, Young abandoned his patent before it was due for expiry - he could not afford to renew the fees.

Yours faithfully,

London, N. W. 10.

Frank Andrews.

 Tasmania 7000, Australia
1.1.80

Dear Sir,

About a year ago I brought an unusual brand of disc and I wondered if anyone could tell me something about it. The brand name is ERA and the label shows a colour picture of a woman in Roman (?) costume watching the sun rise over the ocean. The wording on the label is: "Madriral from „The Mikado"/ Brightly Dawns (A. Sullivan)/ Quartett by/ Mesdames W. Marwood and C. Vicars/ Messrs. H. Turpenny and M. Borwell/ No. 10594/ Reproduced at Berlin". As you can see, there are peculiar

iarities of punctuation, spelling and grammar, but these do not tell me very much about the record's origin. More importantly, the disc is 10" diameter, lateral cut, acoustically recorded (at a rather low level), single-sided, thin and slightly flexible. In overall appearance it is similar to some other German pressings I have seen, having a raised ridge close to the outer edge, another ridge just within the border of the label and raised numbering on the shellac (10594). Unfortunately there are no other numbers or identification marks and side two is completely blank. Who can help?

Thank you for an interesting magazine.

Yours sincerely,
Donald L. Taylor.

BOOK REVIEW

GABRIEL FAURÉ, a discography by Jean-Michel Nectoux, published by Bibliothèque Nationale, 58 rue de Richelieu, 75084 Paris, France.

This is one of the best discographies published so far, and covers the recordings of Gabriel Fauré's works from 1900 to 1977. Fauré (1845-1924), after early experience in religious music, became director of the Paris Conservatoire from 1905 to 1920, and wrote much music for solo and chamber ensembles, church music, and his 97 songs rank with those of the great masters.

Among these songs, members who enjoy the art of good singing will find the names of the great continental exponents, and Britain is well represented by Janet Baker, Maggie Teyte, Butt, Pears and others. Fauré himself never made any recordings for the gramophone, but he cut a number of piano rolls of his own works for Welte-Mignon, Aeolian and Hupfeld, and these and the rolls of others are to be found in this discography. He did not regard the talking machine very highly, but it refused to be snubbed, and registered his compositions in good measure.

This is a beautifully produced book which any student of French music would find acceptable, but the price has not been notified. This volume appears to be the first of a series from the Phonotèque Nationale, and a great improvement in presentation on earlier discographies. The photographic section is well worth having.

G. L. F.

As a postscript it should be pointed out that the Fauré piece 'Les Rameaux' (The Palms) which has been recorded prolifically on disc and cylinder by nearly everybody in the business was by Gabriel Fauré's contemporary Jean-Baptiste Fauré (1830-1914).

THE GREAT TEST MATCHES RESULT!



FLEXIBLE CONNECTION

Have you heard that in all our test matches with America, Germany, and other nations we always come out on top. How do we do it?
Sample Connection Sent on Receipt of Six Stamps.

ACTUAL MANUFACTURERS



FLEXIBLE CONNECTION

The reason is very simple: you send a postcard and we in return send our catalogue. The prices quoted therein will explain why we win.

- NOT DEALERS.

INTERNATIONAL TALKING MACHINE ACCESSORIES CO., 9, Goswell Road, LONDON, E.C.

Printed and Published by E. T. HERON & Co., 11, Tottenham Street, London, W.—February, 1904.

See No. 102911. CLASS 30. MUSICAL INSTRUMENTS AND SUPPLIES. PATHE FRERES PHONOGRAM COMPANY, Wheelington, Del., and New York, N. Y. Filed Apr. 12, 1917.



The words "Hillandale Record" are disseminated except as shown in the drawing.

Particular description of goods.—Disks for Talking Machines.

Claims made since Mar. 30, 1917.

There have always been a few among us who have nursed slight doubts over the legitimacy of this journal's name. HILLANDALE, as a corruption of 'Hill-and-dale' and denoting phonocut records, has been known to offend professing purists, but seems to have been known and accepted by the 'old-timers' of our hobby. The discovery of a Hillandale disc record, put out by Pathe in the United States about March 1917, surely vindicates the use of the word as all right, or 'alright' as so many people write, and that's not to be found in any dictionary either. Floreat Hillandale.

G. L. F.

1903

Important Notice to the trade.

Owing to the increased demand for the

NEW INTERNATIONAL INDESTRUCTIBLE RECORD

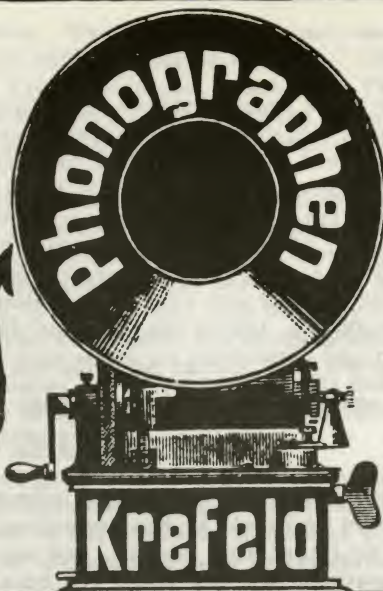
Factors are advised to place their contracts for the coming season as early as possible to ensure deliveries.

E. SELIGMANN, 19, THAVIES INN,
HOLBORN, LONDON.

BEARE & SON,
NEW XL CYLINDER Machines
With Cover & Reproducer **40s.**
Retails at

Write to Special August Prices
XP Cylinder and
Climax Disc Records.
34, RATHBONE PLACE, LONDON, W.

Den
lohnendsten
und
modernsten
Artikel
für
Wiederverkäufer
bilden
die



der
**Allgemeinen
Phonographen-
Gesellschaft
in Crefeld.**

Mignon-Maschinen
von Mk. 15.— an.
**Herold-Concert-
maschinen**
von Mk. 125.— an.

Kataloge über Phono-
graphen und Walzen
für alle Zwecke grat.
und franco

*Beste und billigste
Bezugsquelle.*



TAKE ME BACK TO DEAR OLD BLIGHTY. (2)

Take me back to dear old Blighty, put me on the train —
for London town,
Take me over there, drop me anywhere,
Birmingham, Leeds, or Manchester — well, I don't care!
I should love to see my best girl, cuddling up again we
soon shall be;
Whoa! Tiddle-iddle-ighs, hurry me home to Blighty —
Blighty is the place for me.

SAMPOETH & CO. LTD.

REPROD. BY PERMISSION OF THE LONDON MUSIC PUBLISHERS CO. LTD.



TAKE ME BACK TO DEAR OLD BLIGHTY (1)

Jack Dunn, son of a gun, over in France to-day,
Keeps fit, doing his bit, up to his eyes in clay;
Each night, after a fight, to pass the time along,
He's got a little gramophone that plays this song.

SAMPOETH & CO. LTD.

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ILLUSTRATIONS

On page 12 we show the solid brass trophies constructed by Hereford members Stan Springett and Mike Field, which will be presented each year in the Phonofair competition. This was described in the last issue; the prizes will be awarded for the best machines in each of two categories, which will be determined by the judges on the day, having regard to the entries. The categories will probably be chosen from the following three: Best Restored, Most Original and Most Unusual or Interesting. To win the Best Restored class, a machine will need to be accompanied by details and photographs of the work done and the pre-restoration state, the object being to encourage not only good workmanship, but an appreciation of when not to restore. Similarly, 'Most Interesting' might depend not so much on a novel-looking machine, but on accompanying information about it which, in the judges' opinion, indicated some original research which contributed to our knowledge of talking machines and their history.

We are deliberately trying to avoid making the categories too well defined in advance, in the hope that anyone who feels he has something worthwhile to enter will do so. This should make for an interesting display, and we trust that everyone will relish a little friendly competition and that there will be a grand response.

Winners' names will be engraved on a plaque fixed to the wooden base of the trophies, and they will be held by the winners for one year.

On Page 21, at the top, is an advertisement from the German magazine 'Der Artist' for November 11, 1900. This was sent to us by Dr. Rainer E. Lotz, who kindly provided a translation as well: "The most profitable and most modern goods for dealers are the Phonographs of the Allgemeine Phonographen-Gesellschaft in Crefeld. Mignon machines from Mk. 15 upwards. Herold-Concert machines from Mk. 125 upwards. Phonograph and cylinder catalogues for all purposes provided free of charge. The best and cheapest source."

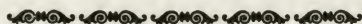
(Dr. Lotz is the author of the book on Ragtime record labels which I reviewed in the February issue; he tells me it is available from THE BLOOMSBURY BOOKSHOP, 31-35 Great Ormond Street, London.)

The two lower pictures on Page 21 were sent in by A. J. George, of Northants., who writes as follows:

"Referring to the picture of the Decca Junior Model C portable gramophone in the December Hillandale News, here are two Bamforth Song postcards of the Kaiser's War period illustrating the song 'Take me back to dear old Blighty.' The Chorus card (No. 2) appears to be an actual Decca, but No. 1 has been heavily retouched and may be a montage. Bamforth issued two sets of this song, 4988 and 5006, with different verses. The firm started more than 100 years ago, making live model lantern slides using local people to accompany on the organ or piano or as vocalists. Came the Kinema and they made some of the earliest motion picture films. With the advent of the phonograph and gramophone they used the lantern-slide negatives to print photo postcards complete with verse, in sets of three or four. Then came tinted cards

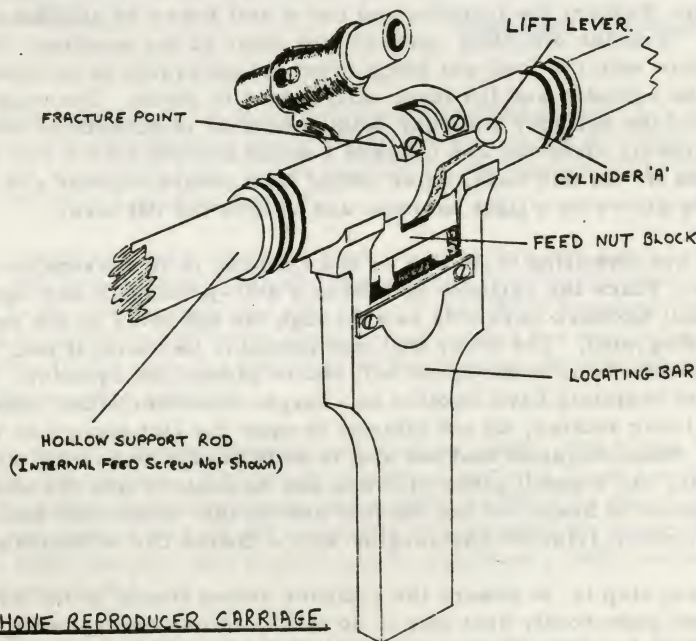
printed from screened blocks. The 1914/18 war came and old songs were re-issued and new ones staged, always with the man in uniform. Others had jumped on the bandwagon: Valentine, Rotary, Living Pictures, Shamrock, Philco and Rapid. Does anyone else collect song cards to match their cylinders and records? I look for any cards showing horn phonographs and gramophones, or comics, or skits on song titles."

✱✱ Actually, the machine shown on these two cards is not a Decca at all, but an Apollo, with a reflector made of four pieces of wood mounted at an angle, like a very deep picture frame. This is clear in No. 1, which appears to have a drawing of the gramophone inserted, as Mr. George points out, while the machine in No. 2 is an actual (and not very clear) photograph. Externally, these machines are almost indistinguishable from the Decca, apart from the fact that the carrying handle is on top of the lid. — Ed.



TECHNICAL FORUM

One of the more common problems with Graphophones is the swelling and cracking of zinc alloy (pot metal) components. The reproducer carriage is particularly prone to this trouble and one of our overseas members writes asking how to tackle the problem on his AG. The method of repair is generally applicable to all models using similar carriages such as the AT, AD, AF etc. Generally cylinder 'A' will be tight on its support shaft, the lift lever may be seized solid and the feet of the reproducer support casting may be cracked.



GRAPHOPHONE REPRODUCER CARRIAGE

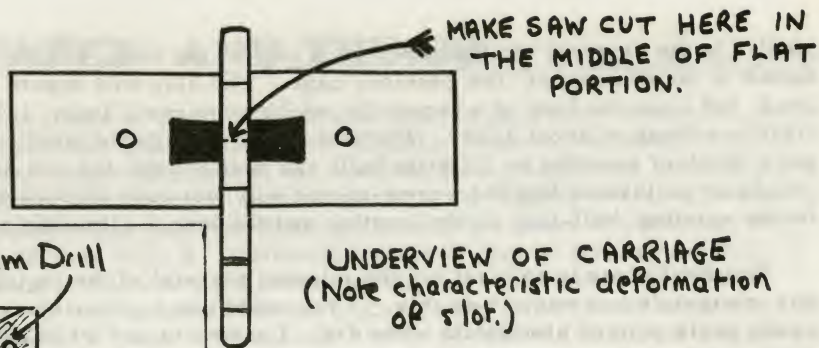
First remove the reproducer support casting by undoing the four countersunk screws and pushing out with a sharp scribe the tiny pin restraining the reproducer lift mechanism (not fitted to Type AT). This is not strictly necessary unless the feet are cracked with pieces missing (see below), but is recommended to prevent damage during repair. Take off the drive belt and unscrew the pulley retaining nut, which has a LEFT-HAND thread. Remove the pulley, gear and washer and the plate protecting the drive gears. (This is unnecessary on the AT as there is no gear cover, and on some other models as the right trunnion is removable.) Check whether the lift lever is seized in the operate or free position (i.e. can cylinder A be moved along the shaft, albeit with difficulty, or is the feed-screw nut engaged?). In the latter case, insert a screwdriver between the flat of the lift lever and the top of the feed-screw nut and gently lever the nut downwards. Place some suitable packing to keep the nut disengaged.

Loosen the grub screws securing the support shaft to its trunnions and gently tap the shaft out (complete with feed-screw and gear) from left to right. Extreme care is needed and the left hand trunnion should be supported against a solid surface; if this precaution is not taken and the shaft is tight, the trunnion may be cracked. Continue tapping until sufficient room has been made to slip cylinder A off the shaft. If the cylinder is too tight to 'slip off' it will be necessary to continue tapping until the left hand edge of the cylinder contacts the right hand face of the left hand trunnion.

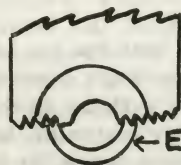
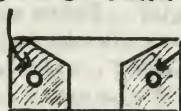
Continue to drive the shaft through cylinder and trunnion until the cylinder is free. Remember: Support the trunnion and use a soft brass or aluminium drift to drive out the shaft. With the offending article now clear of the machine, remove the locating bar complete with the feed-nut block from the underside of cylinder A. We are now left with the cylinder and lift lever still seized in place. The next step depends on the condition of the cylinder and your opinion of what is acceptable restoration. If the cylinder is grossly distorted and cracked I would manufacture a new one from brass and nickel plate it. In this case, after taking what measurements are possible, break the cylinder by pliers or a light hammer and rescue the lift lever.

If you are unwilling to do this or the cylinder is in reasonable condition, proceed as follows. Place the cylinder end-on in a soft-jawed vice and tighten carefully. With a small hacksaw carefully saw through the lift lever in the centre of the flat part (see diagram). The lever will now probably be loose; if not, open the slot gently with a screwdriver until the lever will rotate around the cylinder. Since the cylinder will almost certainly have swollen to a larger diameter either side of that portion on which the lever rotates, do not attempt to open the slot enough to remove the lever altogether. When satisfied that the slot is wide enough to permit satisfactory rotation of the lever, cut a small piece of brass and Araldite it into the slot. Take care not to push the piece of brass too far into the slot or the lever may foul. When set (24 hours in a warm room) trim off any surplus with a Swiss file to obtain a smooth flat surface.

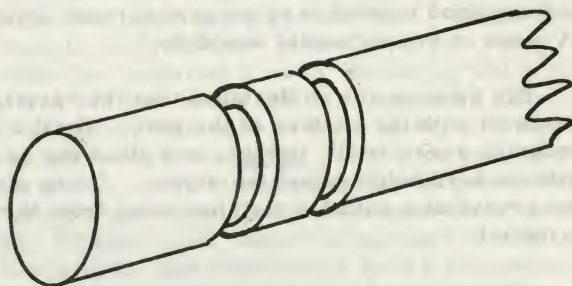
The next step is to ensure the cylinder slides freely on the support shaft. The correct and undoubtedly best way to do this is to use an expanding reamer (19/32" to 21/32") which is gradually opened out until the cylinder is absolutely free. Next best options, in order of merit, are a parallel 5/8" reamer, a 5/8" drill and a round file.



No 60 or 1mm Drill



SECTION AND PLAN VIEW
OF BROKEN LEG.



WOODEN MOULD AID.

If a drill is used, turn it by hand. If you are very skilled and patient it is possible to use a round file to do the job and for many collectors this is the only home option. But it is difficult to get a parallel hole, so be warned! If the shaft is tight in the trunion ease the holes to obtain a nice sliding fit.

Some re-assembly can now take place. Check that the feed-nut block is free to slide in its housing, the threads are clean and the springs in good condition. Correct these if necessary, re-fit the locating bar and replace the whole assembly on its support shaft, sliding the shaft through to its position and tighten the grub screws. Check that the cylinder slides freely with the lift lever in the disengaged position and that the feed-nut engages in the operate position.

It now remains to replace the reproducer and horn support. If the legs are not cracked, just replace the screws. Tighten carefully or you will have cracked legs! If they are cracked and the pieces are there, put a little Araldite on the fracture and tighten the screws just enough to hold the assembly in place and the fractured pieces together. When the resin has set, the screws can be tightened a little more, but not too much or the join will break.

Sometimes, one or more of the legs have fractured and the piece is missing. Repair in this case is delicate and needs a steady hand and a degree of mechanical

skill. In the centre of the fracture, each side of the hole, drill a small hole as shown in the drawing on the previous page. The size will depend on the wire to be used, but I use the loop of a paper clip which requires a 1mm. (.039") or No. 60 drill. Drill to a depth of about 3/16". Prepare a loop of suitable steel wire or paper clip, put a touch of Araldite or Locktite on it and push it into the two holes. The loop should be so formed that the screw-thread will just pass through the space provided by the existing half-hole in the casting and the loop. Allow the adhesive to set.

The final stage is to 'cast on' the missing piece(s) of the leg(s). There are various materials and ways to do this. You could use a proprietary plastic metal or an epoxy resin painted aluminium when dry. I prefer to use DEFCON F, which is an aluminium epoxy compound. Some form of 'shuttering' to mould against is needed, and one good method is to prepare a round piece of material as shown in the diagram. (A piece of broom handle would do.)

The grooves are so designed that the carriage 'sits' in them with the top of the leg level with the surface of the wood. Drill a hole in the centre of the groove for the securing screw to fit tightly, and place the carriage in position with the broken leg with its half-hole against the screw. Using plasticine or similar material block off the groove at a suitable distance away from the fracture to leave a space for the plastic material.

Before introducing the plastic metal, coat the screw and the bottom of the groove with a suitable release agent (silicon grease or the special agent provided in the DEFCON F kit). Make sure no release agent is on the fractured surface or the metal loop. Introduce the plastic metal and smooth off to match the contours of the original. Allow to set (24 hours), remove the screw(s) and it should be as good as new. Remove the carriage from the moulding aid and re-fit to the carriage, but again tighten the screws carefully.

✱✱Enquiries on technical matters, for inclusion in this series, should be addressed to Mike Field (address on Page 4).

The Society is sorry to learn of the death in mid-January of Bill Dini, President of the Vintage Phonograph Society of New Zealand. Bill, who was 71 and a keen machine collector, made a phonographic trip round the world last year, visiting collections in several countries.

From the Library of Congress in Washington, D.C., comes news that Jim Walsh has presented to them his collection of approximately 40,000 discs and 500 cylinders. Most of the collection is of acoustical recordings, and is strong in jazz, humour, minstrel and vaudeville material. Harry Lauder, Al Jolson, Peter Dawson and Vernon Dalhart are said to be represented by virtually every record they ever made. There are also 5,000 - 6,000 Edison Diamond discs, and about 1,500 records by Billy Murray. Apart from the records, there is a very wide range of record catalogues and other literature, and twenty-three 'Early record players', to quote the Press Release.

PEOPLE, PAPER AND THINGS

by George Frow

Some of those who listen to the B. B. C. World Service may have detected a change last year in the introductory and closing tune to Radio Newsreel, when the Royal Air Force Band version of 'Imperial Echoes' was retired after nearly forty years of service. The substitution of this brilliant recording - H. M. V. B8846, released February 1939 - by one that cannot approach it in panache, severs the name of O'Donnell from the B. B. C. As far back as 1927 B. (Bertram) Walton O'Donnell founded the B. B. C. Wireless Military Band, which became just about the most efficient military band there has ever been. It was successor to the 2LO Military Band raised about 1925 by Dan Godfrey Jr. 'Bandy' O'Donnell transferred to the Northern Ireland Orchestra and was succeeded by his brother P. S. G. (Percival St. George) O'Donnell, who conducted the Military Band until it was wound up in 1943 in the middle of the War. Meanwhile a third brother, Wing-Cdr. Rudolph O'Donnell was conductor of the Royal Air Force Band before and during the War, and made the 'Imperial Echoes' recording which has just been discarded. Fathers and sons and brothers were and are frequently found in service bands, and the three O'Donnell brothers, who were of Irish birth, all held Directorships of Music in the Royal Marines before joining the B. B. C. or being seconded to the R. A. F., but that is another story. It is to be hoped that the present difficulties of the record companies will not prevent a projected re-issue of those marvellous 78s by the B. B. C. Military Band. Of their sort, these Columbias are well worth picking up if you can find them secondhand, and undoubtedly have a secondhand value. Incidentally, among the cornets was Charles (Sergeant) Leggett, who made many solo discs and cylinders from the early days. The earlier 2LO Military Band made a few sides for Edison Bell.

While in the matter of military music, I recently discovered a march dedicated to Thomas Edison by the Australasian Alex Lithgow (1870 - 1929), and called 'Boomerang.' Glasgow-born Lithgow was by far the most noted of the march writers Downunder, and perhaps this dedication could have been in return for the unusual support for his material from the Edison Company, who issued the following marches:

Blue Amberol	22540	The Aboriginal
"	"	22541 New Zealand
"	"	22542 Galvini
"	"	1810 Invercargill
"	"	2415 The Royal Australian Navy
"	"	3168 Sons of Australia
Edison Disc	50881	Vera - Valse lente.

This is not intended to be a complete listing; some are found on other labels, but are far more thinly spread. The reason why Sousa did not dedicate a march to his fellow American Edison is not apparent; he signed an exclusive contract for his band to record for Edison in June 1909, the same month that Victor Herbert joined the Company, and it is extraordinary that two such popular and celebrated Americans as Sousa and Edison had to wait until May 1923 before they met and exchanged views on life and

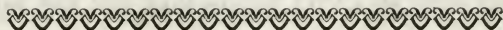
music, and from their reported conversation there was obviously a considerable gulf of taste between them.

My regular correspondent Michael Walters, who is an expert on various matters including Gilbert and Sullivan and bird-song records, has had a book published by David and Charles of Newton Abbott, Devon, called 'The Complete Birds of the World.' This lists every species, surviving and extinct, since the end of the Ice Age. Its cost is £12.50, and from its publicity appears to cover everything that the amateur ornithologist would want to know.

From the Vintage Light Music Society, 4 Harvest Bank Road, West Wickham, Kent, comes a reprint of the H. M. V. record catalogue for October 1926. It has 24 pages (with self-cover) and costs 55p. post free, and may be recommended for the price. Fifteen months after the arrival of electric recording the catalogue offers a somewhat stuffy selection, reminiscent perhaps of the gramophone salons of the day, with their bentwood chairs with green velvet seats and brass studs, and the hushed and serious business of buying a record. The big release of October 1926 was the Schubert Trio played by Cortot, Thibaud and Casals, while there is much to titillate the dance band fraternity.

At the time of going to press, word has reached us of a series on B. B. C. Radio 4 called 'Keeping Track', which is starting on Saturday afternoons from 4 to 4.30. As this will cover aspects from cylinder to tape, the programmes should appeal to members. Each of the initial eight programmes will be introduced by Peter Clayton. Two members are at present known to be taking part, Joe Pengelly playing his tape of cylinders and Peter Adamson with his early Berliners, as well as several other personalities connected with records and with the industry. Joe Pengelly is asking if anyone possessing any Lambert Concert cylinders would be willing to loan them to him for copying; if so, they should get in touch with him, C/O Radio Plymouth.

With the death of the Rev. Colin Marr late last year, the Society has lost a long-standing and helpful member, and for some of us a happy correspondent of years past. He must have been of considerable age, serving as a padre in the trenches in the Great War, and was a man whom none could fail to admire and respect. Major Gerry Annand used to tell the story of an overnight visit to the Devon village of Silverton, where Colin Marr was vicar and rural dean, and of accompanying him in the afternoon to say Evensong in the church. As is so usual in a small village, no parishoners materialised at that time of day, and Colin Marr said Evensong with our late President acting as the congregation. Towards the end of the prayers to which Gerry was no doubt making the correct responses, Colin Marr said "...and please God, send us both some Blue Amberols." When questioned afterwards by Gerry, Marr said "When you're asking God for something, you might as well ask Him for something you want." It is not recorded whether any later acquisition of desirable cylinder items was attributable to Divine Intervention.



THE FEBRUARY MEETING

"Patronised by the Crowned Heads of Europe and the Nobility" -
Presented by Leonard Petts.

A larger crowd than usual gathered to hear this programme, including guests from the R. V. A. S. and EMI. They were rewarded with a first class presentation with recordings transferred to tape from early records, some of which have never been heard in public. Each member of royalty or nobility was introduced by his National anthem or 'signature tune', and brief details of the recording and the attendant negotiations preceded the playing of the record made by the personality.

The difficulty of recording monarchs (sovereigns, not gramophones) during the acoustic era was emphasised; it was impossible to ask a monarch to repeat a speech if it went wrong on the first take, nor could you very well push such a person as Queen Mary towards the recording horn, lest you be sent to the Tower before you "could say 'Gramophone and Typewriter Ltd.'"

The Roumanian anthem was the first piece we heard, and also seemed to be the longest. It was hoped that it was not played to the same tempo during a rainstorm. Queen Elizabeth of Roumania, alias Carmen Sylva, then recited 'A Friend', which was issued on a red G.+T. record in 1903. A recording of the Shah of Persia, taken in 1906 and issued in 1909, followed a considerable amount of humble negotiations by Maxim Pick, who addressed himself to the Shah as 'Your devoted slave, Maxim Pick.' Included in the negotiations was the presentation to the Shah of a Triplephone Gramophone.

The Prince of Montenegro (now part of Yugoslavia), who in 1910 proclaimed himself the first and only King of this small realm, was heard next. Then followed an easily recognised introduction, and the Empire Day Message from Their Majesties King George V and Queen Mary (May 24th 1923). The Gramophone Company had been trying for some time to get a recording from the Royal Household, but it was a Mr. Payne of a Southall school who wrote to Mr. Manson (manager of the British branch of the Company), suggesting a special Empire Day message to all the children in the Empire. This was eventually arranged, and the records were issued with a seal which was on no account to be broken before Empire Day. They were distributed to schools, but were available to the public from May 25th; dealers were urged by the Company to order in hundreds rather than dozens.

Next was the Prince of Wales' speech on Sportsmanship (which did not sell as well as the previous record), and then one which was never sold at all; a special recording made at Hayes for Princess Victoria and for the Royal Archives. This was followed by the King of Spain in a message to his people, and we then went to Rome to hear the Popes. A recording of Pope Pius XII was apparently difficult to obtain as he wanted evidence that Pope Leo XIII had made cylinders at the turn of the century. The appropriate cylinder was found after much research, and was demonstrated at the Vatican to prove the recording had taken place. It had been made by Bettini in 1903, and was

played to us, followed by the voice of Pope Pius XII speaking in English.

The penultimate record was of Mussolini, and we concluded with a Regal record of Prince Monolulu, which needs no introduction: 'I gotta n'orse.'

Leonard had brought along various labels of royal recordings which made a good discussion point for the interval. Len Watts provided (and operated) an H. M. V. tape recorder, and the evening closed with a round of applause for the presenter.

D. R. R.

Dear Mr. Proudfoot,

As Meetings Secretary, I would like to add a few points to the comments you made on Mr. Temple's letter in the February 'Hillandale.'

Since that letter was written (in December), some of the programmes have been re-arranged, but the balance is about the same: two are strictly machines, three feature a machine or machines, and four are recitals of the type Mr. Temple considers suitable for societies such as the R. V. A. S. Two of these feature the artists themselves, and should not be passed off as just 'another recital.'

Many of the members who come to London meetings do so on the way home from work, and it is not easy to take a machine to work during the rush hour and keep it there without an element of risk. When I take a machine to London, there is a chance of its incurring scratches or dents, and other members may not be prepared to take similar risks. Also, it is not very easy to create a programme around a Decca portable or an Edison Gem without cylinders (very fragile) or discs (heavy).

In 'Hillandale' No. 103 I referred to similar criticisms to Mr. Temple's, in response to which I held a machine programme myself, reported in that issue. With help from the Committee, I have arranged all the programmes for the London meetings since. Offers to present programmes, and suggestions for improvements, were invited before the last A. G. M., but I do not recall seeing any communication from Mr. Temple at the time, nor did he come forward at the A. G. M. when volunteers were called for.

I am fully in favour of criticism to improve matters and rectify complaints, but let it be constructive, and not come from critics able to rectify matters themselves.

Yours sincerely,

D. R. Roberts.
Meetings Secretary.

Woking, Surrey, 22.2.80.

Man beachte

Die

BOMA

grosse



D. R. P. a.
D. R. G. M.

NEUHEIT

auf der Leipziger Messe,
Petersstrasse 41 I.

BOMA

Apparatebau-Gesellschaft m. b. H.,
BERLIN S.O. 33.

TAILPIECE

The illustration overleaf shows an advertisement which appeared in Germany in 1906. Freely translated, the slogans mean "People notice BOMA" and "The very latest thing." A close study of the phonograph reveals some curious features if we choose to ignore the probability that the engraver got a bit mixed up. The winder is on the left - or is it, for the horn is facing away from us, so perhaps we are looking at the back of the machine? If so, then the mandrel and feed-screw are driven from the right-hand end. What is that milled ring out of which sprouts the horn elbow? And is the reproducer-and-feed-nut operating lever really between the guide rod and the mandrel, at the back if the winder is operated by a right-handed, crazy mixed-up kid of a phonoist? Answers to the Editor, in plain brown envelopes, in invisible ink on Cellophane please.....

Sorry there's no space left for pictures of a phonograph cylinder recorded on the inside - I jest not, will try and get it into the June HILLANDALE now. Have you renewed your subscription?

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